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**THE PEDAGOGICAL IMPORTANCE OF  
NARRATIVE COHERENCE IN DIGITAL  
STORYTELLING WITHIN EDUCATIONAL  
CONTEXT**  
A Literature Review

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# ABSTRACT

Darshani Kumari Wickramasinghe Wickramasinghe Mudiyansele Thenne Walawwe: Narrative coherence in digital storytelling within educational context  
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Maintaining student engagement has become increasingly challenging in an era of shortened attention spans and digital distractions. Coherent narrative structures are therefore essential in digital storytelling to guide learners and maintain their interest. As digital storytelling gains pedagogical importance, the need for well-constructed, coherent student narratives becomes pressing. This makes investigating how narrative coherence can be achieved in digital storytelling a timely and significant educational inquiry. Through a literature review approach, this thesis investigates the pedagogical importance of narrative coherence in digital storytelling and the strategies used to achieve it in digital environments. The research aims to synthesize existing studies that discuss how coherence contributes to comprehension, engagement, and meaning-making among learners.

The findings indicate that narrative coherence, achieved through temporal, causal, thematic, and referential connections, functions as a cognitive scaffold that supports comprehension, reflective thinking, and the integration of multimodal elements. In educational settings, coherence supports learners in organizing ideas, developing literacy skills, and connecting emotional and cognitive dimensions of learning. Strategies such as storyboarding, Story Circles, and the integration of visuals, sound, and writing blocks are shown to enhance coherence while promoting collaboration and creativity. The study emphasizes the role of the educator as a mentor who guides students in constructing coherent narratives through reflective and technology-enhanced practices. It also emphasizes that digital storytelling should serve pedagogical goals rather than merely technological innovation. While the research is limited to secondary sources, the thesis provides a theoretical framework for prospective empirical studies exploring how coherence-focused digital storytelling influences student learning outcomes such as critical thinking, creativity, and engagement.

Overall, this thesis concludes that coherent digital storytelling is a powerful pedagogical tool that integrates narrative understanding with digital literacy, fostering creativity, empathy, and deeper learning experiences.

Keywords: digital storytelling, narrative coherence, scaffolding, digital literacy, multimodal literacy, pedagogy, collaborative learning

The originality of this thesis has been checked using the Turnitin Originality Check service.

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I used ChatGPT-5 to gain a general understanding of the functionality of web applications such as EBSCO, JSTOR, and ERIC; however, no information generated by the tool was included in the written work. ChatGPT-5 was also used to clarify the distinctions between interactive storytelling and visual storytelling, and to gain a basic understanding of storyboards. Additionally, I used ChatGPT-5 to simplify certain sections of Stefan Meier's (2022) article Digital Storytelling: A Didactic Approach to Multimodal Coherence, as some sections of the text were difficult to interpret.

I acknowledge that I am fully responsible for the entire content of my thesis, including the parts generated by AI, and accept accountability for any violations of ethical standards in publications.

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# 1 INTRODUCTION

Storytelling, an ancient art form dating back to the dawn of human communication, traces its origins to oral traditions where narratives were passed down through generations. Initially used as a means to share experiences, history, and cultural wisdom, in the form of fables, myths, anecdotes, poetry, and riddles, storytelling evolved across cultures and civilizations. This timeless and powerful medium is deeply intertwined with education, offering a multifaceted approach to engage learners across diverse educational settings and various ages.

However, in today's digitally-driven world, education undergoes constant evolution, embracing innovative methodologies to engage and empower learners. Among these strategies, digital storytelling has expanded its reach, transitioning from oral folklore to written literature and now embracing digital platforms, offering educators innovative tools to engage students and improve learning experiences (Benmayor, 2008; Brown et al., 2005; Dreon et al., 2011; Robin, 2008; Rossiter & Garcia, 2010; Schmier, 2021; Sukovic, 2014; Tatli et al., 2022). These thoughtfully planned student-generated digital video projects have been shown to strengthen reading and writing skills, support the development of mathematical and computational problem-solving abilities, and enhance critical thinking and comprehension abilities (Kearney, 2011; Oskoz & Elola, 2016; Preradovic et al., 2016; Schmier, 2021; Suwardy et al., 2013; Tatli et al., 2022). In language learning, especially in second language (L2) contexts and English as a Foreign Language (EFL) classrooms, instructors recognize digital storytelling as an effective pedagogical tool, as it encourages students to create narratives that emphasize proper pronunciation, spoken grammar, efficient and coherent language use, and appropriate word use; its oral nature further supports the improvement of pronunciation and speaking skills (Lee, 2014; Tatli et al., 2022). Additionally, digital storytelling can function as a "thinking device" in reading workshops, guided reading groups, and independent reading sessions, helping students make meaning from texts (Bomer, 2011, as cited in Schmier, 2021, p.179).

Digital storytelling tools also assist students in gaining social-emotional skills like critical thinking, creativity, and teamwork by helping them express and comprehend their thoughts and feelings (Abderrahim & Gutiérrez-Colón Plana, 2021; Kearney, 2011; Quah & Ng, 2022). According to Kearney (2011), students become more engaged, actively listen, and understand the content better when digital storytelling is used to encourage class discussions and simplify abstract concepts. Kearney (2011) also noted that students demonstrate their uniqueness in inventive and original ways, particularly when their classmates are recognized as the primary audience for their projects. Consequently, by utilizing group knowledge and offering collaborative resources, digital storytelling acts as a social mediator that promotes cross-cultural learning. Moreover, studies have demonstrated that when creative expression is integrated with planned learning objectives, digital storytelling transforms passive learning into an active, student-driven experience (Niemi & Multisilta, 2016; Quah & Ng, 2022; Robin, 2016).

Students collaborate with colleagues to achieve a shared objective when working on context-rich digital video (DV) projects. Through this collaborative process, they develop important character qualities such as Leadership abilities, self-control, self-assurance, and a personal will to study, along with the ability to avoid and resolve conflict (Foley, 2014; as cited in Robin, 2016, p. 20; Quah & Ng, 2022; Tatli et al., 2022). In particular, students in EFL classes who experience speaking difficulties due to low self-esteem, nervousness, anxiety about critiques, or a lack of motivation frequently face serious obstacles that limit clear communication and language learning (Pardo, 2014; Tatli et al., 2022). Nonetheless, research has revealed that participation in digital storytelling projects encourages students to present their work publicly, which helps them overcome these behavioural challenges, strengthen their communication and speaking abilities, and build meaningful connections with teachers and the wider community (Pardo, 2014; Quah & Ng, 2022; Shelby-Caffey et al., 2014). As a result, digital storytelling has become widely acknowledged as an effective pedagogical tool that enhances literacy practices, language learning, critical thinking, creativity, social-emotional competencies, and key 21st-century skills (Kearney, 2011; Lee, 2014; Niemi & Multisilta, 2016; Oskoz & Elola, 2016; Pardo, 2014; Quah & Ng, 2022; Schmier, 2021; Shelby-Caffey et al., 2014; Suwardy et al., 2013; Tatli et al., 2022).

Modern meaning-making depends more and more on multiple modes; scholars contend that classrooms need to encourage multimodal composition (Meier, 2022; Miller & McVee, 2013; Picciano, 2019). When using digital resources in multimodal compositions, students are compelled to reflect on viewers, objective, style, and setting (Meier, 2022; Miller & McVee, 2013). Thus, when teachers create spaces for multimodal expression, students can integrate music, visuals, narration, and voice-overs, assuming roles like authors, producers, and meaning creators (Miller & McVee, 2013). Student-generated digital stories embody this pedagogical shift, which integrates multimodal components such as visuals, sound, narration, and video, promotes deeper engagement, improves reading and writing skills, strengthens oral language abilities, and supports collaborative and reflective learning (Ohler, 2013; Quah & Ng, 2022; Robin, 2016). Studies have also demonstrated that incorporating these multimedia components helps develop learners' ICT and digital literacy while additionally helping them in overcoming linguistic obstacles, by encouraging the creation and publication of online content, including blog posts, Wikipedia entries, podcasts, and videos on platforms such as YouTube (Ohler, 2013; Quah & Ng, 2022; Robin, 2016).

Thus, by combining technology and narrative, these multimodal, student-driven projects also nurture confidence, motivation, identity development, and cross-cultural understanding (Foley, 2014, as cited in Robin, 2016; Liu et al., 2010, as cited in Quah & Ng, 2022, p.856; Shelby-Caffey et al., 2014; Tatli et al., 2022). Consequently, digital storytelling offers important socio-cultural and critical pedagogical implications, inspiring students to interact meaningfully with diverse perspectives and to think critically on their own learning experiences. By doing so, digital storytelling transforms students from passive information consumers into active contributors and producers of knowledge, ultimately empowering them (McLaren & Kincheloe, 2007).

Nevertheless, since these advantages depend not only on the digital medium but also on the level of quality of the stories students create, narrative coherence becomes central to the effectiveness of digital storytelling in educational contexts. The visible and hidden clues that enable viewers to make connections between events, decipher meaning, and comprehend a story as a cohesive whole are provided by coherent narratives (Bublitz et al., 1999; McAdams, 2006). Digital

storytelling involves crafting a concise narrative typically presented within a 3-5-minute video format, incorporating various multimedia elements (De Jager et al., 2017; Meier, 2022; Oskoz & Elola, 2016; Robin, 2008; Rossiter & Garcia, 2010; Tan et al., 2014). Therefore, to ensure effective communication, and for creating a compelling and immersive learning environment within this limited period, coherence among the smooth integration of plot, characters, visuals, sound, and interactivity is imperative (Lambert, 2010; Meier, 2022b; Michael Wilson, 2014).

Likewise, maintaining student interest is a predominant concern for educators in an era characterized by shortened attention spans and digital distractions. Establishing a coherent narrative structure that guides users through the digital narrative is therefore essential to keep them engaged in the unfolding events and enhance their overall experience. Given the growing pedagogical importance of digital storytelling, ensuring the production of well-constructed stories becomes vital. Hence, as coherent narratives promote effective storytelling, investigating narrative coherence within digital storytelling ultimately emerges as a timely and crucial endeavour within the realm of education.

While numerous studies have explored the benefits of digital storytelling in education (Benmayor, 2008; Dreon et al., 2011; Kimura, 2012; Niemi & Multisilta, 2016; Ohler, 2013; Oskoz & Elola, 2016; Robin, 2008; Shelby-Caffey et al., 2014; Tatli et al., 2022), studies that have been incorporated creative tools and collaborative practices to achieve narrative coherence in digital storytelling are very few (Couldry et al., 2015; France & Wakefield, 2011; Kalantari et al., 2023; Kearney, 2011; Lambert, 2010; Lambert & Hessler, 2018; Sukovic, 2014; Tan et al., 2014). This study, through a literature review, aims to explore the pedagogical importance of narrative coherence in digital storytelling and examines how creative tools and collaborative practices help students construct coherent narratives.

A literature review was conducted to obtain a comprehensive understanding of the subject area, informed by existing scholarly contributions. The research questions are:

- 1: What is the importance of narrative coherence in storytelling?
- 2: What strategies are used to achieve narrative coherence in digital storytelling?

Since the purpose of this research is to obtain a comprehensive picture rather than validate a particular viewpoint, no hypothesis is proposed that can be proven or disproven. The thesis defines storytelling, discusses its goals, and provides a detailed description of digital storytelling, which might serve as the foundation for future research. Except for the academic sector, the usage of digital storytelling in other domains is not addressed. Readers interested in exploring the various applications of digital storytelling are encouraged to consult the sources cited. This thesis also elaborates on the concept of narrative coherence, and it is evaluated through text linguistics.

In chapter 2, the definition, purpose, and general process of conducting a literature review are provided, along with an explanation of how the literature review was conducted for this study, with an aim of answering the research questions. Chapter 3, addresses the first research question by defining coherence from multiple perspectives and examining the role of narrative coherence in storytelling. It also defines the concept of story and introduces digital storytelling, its key elements, and its applications, establishing the conceptual foundation for this study. Chapter 4, addresses the second research question by examining the four main types of coherence in text linguistics and key strategies used to achieve narrative coherence in digital storytelling. Chapter 5, synthesises the findings, reviews the limitations of the thesis, and suggests ideas for further research.

## 2 LITERATURE REVIEW

This chapter presents what a literature review is as well as the steps involved in completing this study's literature review for answering the research questions. In Chapter 2.1, the definition, purpose, and procedure for conducting a literature review will be covered. In Chapter 2.2, the process of conducting the literature review in this study will be explained.

### 2.1 Literature review definition, purpose and procedure

The concept of a literature review is defined and understood differently in the literature depending on the author's perspective and the context. According to Hong and Pluye (2018), a literature review can be a secondary research where the primary sources serve as the analytical unit being summarized, criticized, and commented on. While agreeing with Hong and Pluye's definition, Fink (2020) further outlines a literature review as a "systematic, explicit, and reproducible method for identifying, evaluating, and synthesising the existing body of completed and recorded work produced by researchers, scholars, and practitioners" (p. 6). Accordingly, the scholars identify a literature review as a methodical, critically evaluated summary of existing literature on a particular subject area, wherein making connections and clarifications for seemingly contradictory facts is crucial for further research (Booth et al., 2022; Callahan, 2014; Collins & Fauser, 2005; Fink, 2020; Galvan & Galvan, 2017; Hong & Pluye, 2018; Kennedy, 2007; Lingard, 2017; Paul & Barari, 2022; Torraco, 2016; Tricco et al., 2018; Winchester & Salji, 2016).

Winchester and Salji (2016) highlight that literature review should be subjective, yet unbiased summary of the available research, offering a balanced perspective that takes into account both established and novel ideas, as well as contradicting findings. Booth et al. (2022) also emphasize the importance of a literature review's internal validity, which is generated by treating the review objectively. According to them, in order to prevent biases in identification, selection, reporting and interpretation of information, a literature review should always be systematic. Studies selected for systematic methods should not be chosen based on how interesting their

results are or whether they produce desirable outcomes. Instead, inclusion should depend on the studies' reliability and relevance to the research question. (Booth et al., 2022; Hong & Pluye, 2018; Kennedy, 2007; Torraco, 2016; Tricco et al., 2018; Winchester & Salji, 2016).

Numerous scholars have noted that there are various purposes for literature reviews. Callahan (2014), Lingard (2017), and Pati and Lorusso (2018) mention that the purpose is to find out how much and what kind of literature is available on a given research topic, learning about the current state of knowledge, significant studies, and key authors in the field under review are crucial components that support the researchers obtaining a solid understanding of the subject of their intended study.

While agreeing on Lingard (2017), and Pati and Lorusso (2018), Galvan and Galvan (2017), and Tricco et al. (2018) emphasize that literature reviews are the process by which researchers identify the conceptual differences and similarities between each work and how it relates to other works on the same topic area and place one's research within the body of existing literature. Other than these scholars also identify unexplored study areas or research gaps, evaluating earlier work and creating connections with related subjects, and direct future research efforts, all are general aims of performing a literature review (Booth et al., 2022; Collins & Fauser, 2005; Hong & Pluye, 2018; Kennedy, 2007; Lingard, 2017; Paul & Barari, 2022; Torraco, 2016; Winchester & Salji, 2016).

Furthermore, scholars have determined that each researcher needs to adhere to a set of procedures when conducting a literature review to accomplish the purposes mentioned above (Booth et al., 2022; Callahan, 2014; Galvan & Galvan, 2017; Hong & Pluye, 2018; Kennedy, 2007; Snyder, 2019; Torraco, 2016; Whittemore & Knafl, 2005; Winchester & Salji, 2016).

In other words, there are several phases involved in creating a literature review. The writing process is the term used to describe these steps (Galvan & Galvan, 2017) in the field of composition and rhetoric. Table 1 provides an overview of the literature review writing process, summarized in six steps according to (Efron & Ravid, 2019). Numerous academic publications also adopt or reference this same process. (Booth et al., 2022; Callahan, 2014; Galvan & Galvan, 2017; Hong & Pluye, 2018; Kennedy, 2007; Snyder, 2019; Torraco, 2016; Whittemore & Knafl, 2005; Winchester & Salji, 2016).

**Table 1***Practical Steps for Conducting a Literature Review*

Practical paces	Tasks to perform
Pace 1 Choosing review topic/title	Choose an appropriate topic while keeping the review's purpose in mind. Think about the potential audience of the review. Think about the specific purpose and research question(s) the review will be addressing.
Pace 2 Locating sources and generating reading list	Determine keywords and search terms. Decide the inclusion and exclusion criteria, search strategies, and search terms for the particular review. Identify relevant databases and information sources.
Pace 3 Selecting, analyzing and evaluating sources	Scan titles and abstract of articles to determine which sources to incorporate into the review. Summarize and assess the themes and contents of the sources. Make notes on the quality of sources.
Pace 4 Synthesizing, organizing, and writing the literature review	Consider which reporting standards are suitable for the evaluation. Consider the information that needs to be included in the review. Take into consideration the quantity and quality of the information. Integrate the analysis of several sources into a coherent, well-structured narrative.

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Pace 5 Cultivating an Academic Writing Voice	Decide between using active or passive voice and using personal pronouns. Apply proper reference and citation guidelines consistently.
Pace 6 Editing and refining the review	Summarize the findings. Develop a coherent argument that explains your viewpoint. Provide a clear explanation of the findings. If required, perform the earlier stages. Generate a reference list.

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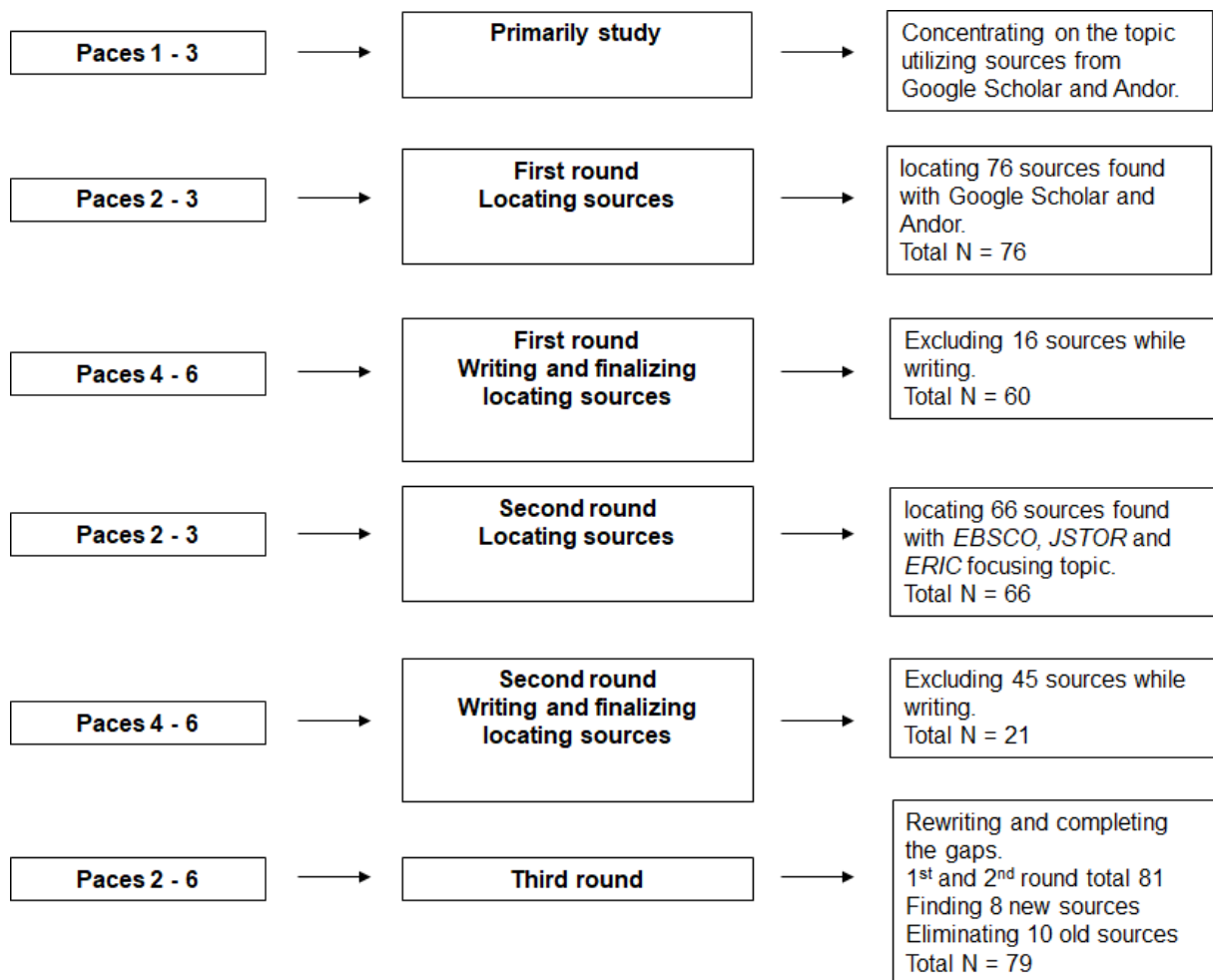
## 2.2 Performing the literature review

The literature review in this study follows the format of a narrative literature review conducted by Katri Ylönen (2020) in their Master's thesis titled "Telling Stories with Personas." A variety of sources were used, and the focus of the topic became more refined as the literature review progressed. Consequently, several previously included sources were eliminated. Publications that provided only a brief description of the topic and contributed no new insights to the review were also excluded. Figure 1 provides a summary of the process followed in conducting my literature review. The first three phases, as shown in Table 1, were conducted simultaneously during the initial examination of the subject.

Following this stage, sources were located, and the literature review was completed in three stages. In the first stage, sources from Google Scholar and Andor were used; in the second stage, sources from EBSCO (Education Research Complete), JSTOR, and ERIC (Education Resources Information Center) were utilized; and in the third stage, gaps identified in the literature review were filled.

Sources were located separately for the first and second stages (paces 2 and 3), and the literature review was written and revised throughout paces 4, 5, and 6. Source assessment and selection were carried out simultaneously, resulting in the completion of paces 2 and 3 at the same time. Summaries of the collected sources

were prepared to facilitate a better understanding of the materials already obtained. At this stage of the research process, references and hyperlinks were reviewed to gather additional sources and supporting materials. Paces 4, 5, and 6 of the literature review process were conducted concurrently, as the organization of the review and the writing style developed and changed throughout the process. During the third stage, paces 2 through 6 were performed simultaneously to refine the literature review gradually and address any remaining gaps one at a time.



**FIGURE 1.** The summary of the process followed in conducting the literature review.

Literature on narrative coherence and digital storytelling was searched across several reputable databases, namely JSTOR, ERIC, EBSCO, and Google Scholar, using relevant key terms identified in Table 2. The literature search initially included a

range of keywords, such as narrative coherence, consistent narrative, coherent story, cohesive structure, structural unity, plot consistency, narrative integrity, narrative unity, and logical narrative. However, as several of these terms produced limited or no results, the search was narrowed to focus on a selected subset of keywords from the initial list defined in Table 2.

**Table 2**

*Key Search Terms*

Concept	Search terms
Narrative	Coherence AND digital storytelling
coherence	Consistent narrative AND digital storytelling
Digital storytelling	Narrative coherence AND digital storytelling Coherent story AND storytelling Cohesive Structure AND storytelling Digital storytelling Narrative coherence

The above-mentioned databases were used because they enable the exploration of both theoretical and practical viewpoints by providing a diverse range of resources, such as books, government documents, research reports, conference papers, peer-reviewed journal articles, and other educational materials. They also provide advanced search tools, like Boolean operators and filtering choices that allow for more focused and accurate searches. These databases also work well with Zotero and other reference management software, making the process of gathering and arranging sources easier. A large amount of the content in many of these databases is also available in full-text format, giving users instant access to relevant papers and articles. Given the broad scope of the topic, specific inclusion criteria were developed to guide the review. Consequently, studies were considered for inclusion if they met the following stipulations:

(1) For this literature review, a variety of sources was selected, including books and book chapters, peer-reviewed scholarly journal articles, master's theses, doctoral dissertations, unpublished literature, lay periodicals, editorials, conference papers, and grey literature. These sources were selected to focus on narrative coherence and digital storytelling, providing a diverse range of viewpoints on these topics. A more comprehensive literature review is made possible by this broader and more diverse pool of sources, which also offers a solid basis for data analysis. However, when the focus of the topic became more refined as the literature review progressed sources were excluded only if they offered minimal description or did not contribute new insights to the review.

(2) Excluded from the review were articles published in non-refereed journals and literature not conducted for educational purposes.

(3) The integration of digital storytelling as a pedagogical strategy in educational settings was relatively uncommon in the 1990s. Therefore, before the 2000s, literature on using digital storytelling for educational objectives was also rare. However, as technology advanced and became more accessible in the 2000s, digital storytelling started gaining popularity as a valuable educational tool. Thus, the use of digital stories in the learning process has become increasingly prominent in the literature over the past 24 years. For this review, only studies available in English from this period were selected, including the most recent findings.

The process of applying inclusion criteria began with the initial evaluation of titles and abstracts. When the inclusion requirements could not be determined from the title or abstract alone, the complete text of the article was retained for additional examination. The terms "coherence and digital storytelling," "consistent narrative AND digital storytelling", "narrative coherence and digital storytelling," "coherent story AND storytelling", "cohesive Structure AND storytelling", "narrative coherence," and "digital storytelling" were used to search the literature individually. Only the first 100 results were taken into account if the search returned more than 100. Thus, the search terms used produced a total of 504,231 results when sorted by date and open access to full text.

### **2.2.1 Initial research and first stage**

An initial research was conducted using Google Scholar and Andor databases to narrow down the research topic and to develop a clearer understanding of key concepts such as storytelling, narrative coherence, and digital storytelling. This preliminary stage helped clarify how these terms are used in academic discussions. It also showed that there are many different viewpoints and interpretations of these concepts, which led me to include a wide range of sources in the literature review to reflect this diversity of perspectives.

#### *Andor*

Andor is an internet search engine that provides access to paper and electronic resources from the Tampere University Library as well as a wide range of international e-resources (Tampere University, 2020). For more in-depth and specific searches, this search service also offers an A-Z databases list or subject guides (Tampere University, 2020). When searching the literature for this study, a total of 1319 results were returned when all search terms were applied with Andor. From this, 63 results were selected based on pre-defined criteria provided by Andor, including language, subject publication date, peer review, online availability, and open access. However, the results were not limited by material type in order to include a variety of sources.

#### *Google Scholar*

As a free internet search engine, Google Scholar is dedicated to indexing academic content from a wide range of disciplines. Finding scholarly articles, theses, books, conference proceedings, patents, abstracts, and other academic publications is made easier for users by searching through a variety of sources, such as peer-reviewed journals, academic publishers, universities, online repositories, and other websites.

Utilizing every search keyword, the results were limited to sources published between 2000 and 2024. Since filters such as review articles and patents were not applied during the initial search phase, this stage produced thousands of results. Ultimately, the results were sorted by relevance, as Google Scholar's advanced search provides limited options for conducting more focused searches. The total

number of results from all search parameters was 467,400. Therefore, only the first 100 results were carried forward to the next search step, where 50 additional results were sorted. After reviewing the titles, an additional 35 sources were eliminated. Following an examination of the abstracts and the first five pages of the remaining 15 results, 13 of them were eventually considered for this study.

When working with both the Andor and Google Scholar databases, the abstracts and titles of every article were reviewed to determine their relevance to the study. References and hyperlinks were also examined to gather additional sources and supporting materials. Occasionally, the main content was skimmed to gain a clearer understanding of each article's focus before making a selection. Ultimately, a total of 76 sources were identified through the Andor and Google Scholar databases. Nevertheless, 16 sources that did not contribute any novel concepts or perspectives to the thesis were excluded during the preparation of the literature review at the conclusion of the first stage. Consequently, 60 sources remained after the completion of the initial writing cycle.

### ***2.2.2 The second stage***

The second stage of source searching was conducted using the EBSCO, JSTOR, and ERIC databases. Every article's abstract and title were examined in order to determine if they were pertinent to the study, and references and hyperlinks were also examined to find more sources and supporting information. Sources that did not concentrate on the field of education or only briefly addressed the topic were eliminated. In this stage, the main content of each article was quickly scanned to gain a better understanding of its focus before making a selection.

#### ***EBSCO***

The Education Research Complete database gives users access to a wide range of scholarly materials about education. This database is extensively used by education students, professionals, and policymakers (EBSCO Information Services, 2025). From early childhood to higher education, this offers indexing, abstracts, reviews, and hundreds of full-text education publications and conference papers (EBSCO Information Services, 2025).

The initial search was started using all the search terms and narrowed down the results using advanced search filters in EBSCO, such as Full Text, References Available, Peer Reviewed, and publication date. A total of 9153 results were obtained using these parameters. Additional search parameters were used, including subject and language, to sort the results in the second phase. However, the results were not restricted by source type in order to ensure a variety of sources. After sorting the first 100 results based just on the title, only 25 sources were left for the subsequent sort. Thus, at the conclusion of the second phase, 11 results were generated by reading the title, abstract, and keywords.

### *JSTOR*

Scholarly books, periodicals, and original materials from a variety of fields are accessible through the digital library JSTOR. Scholarly articles and archive material from previous journal issues are often accessed by researchers, students, and educators, particularly in the humanities, social sciences, and sciences (JSTOR, 2025).

All of the keywords were used in the literature search in JSTOR, and the results were filtered using language, publication date, and accessible material. Consequently, 20,687 results in all were obtained. However, only the first 100 results were considered for the second round due to the enormous volume of results. After reviewing the title, 20 sources were found in this step. In the final round, after reading the abstract and keywords, only one source was considered for this study.

### *ERIC*

ERIC is a bibliographic search engine that provides access to educational research and information. It offers a vast collection of full-text documents that include journal articles, books, research reports, conference papers, dissertations, and other resources focused on education topics. Researchers can also restrict search results by audience, such as students, educators, researchers, or administrators, and by educational level, like early childhood education (EBSCO Information Services, 2025).

A total of 5672 sources were found after the initial stage of the literature search, which used all search terms and language as the only search filter. In the next stage,

the following search parameters were used to limit the results: publication date, target audience, and education level. Thus, 21 sources were selected for additional sifting from the initial 100 results. In the final stage, 9 sources were sorted for this study after a cursory review of the abstract and content.

The EBSCO, JSTOR, and ERIC databases were used to identify 66 sources at the conclusion of the second stage. However, during the writing of the literature review at the conclusion of the second stage, 45 sources in total, including duplicates and those that offered no fresh concepts or viewpoints relevant to the thesis, were eliminated. As a result, 21 sources remained after the completion of the second writing cycle.

### **2.2.3 *The third stage***

In the third stage, sources were searched to address gaps identified in the literature review. For instance, primary sources were sought that have achieved narrative coherence in digital storytelling through the use of creative technologies and collaborative activities. Consideration was also given to whether additional master's theses from TUNI could contribute to the research. Furthermore, hyperlinks and references in a few sources that appeared interesting and significant were examined. During this stage, 8 new sources were identified and promptly incorporated into the literature review. In total, 8 new sources were added, while 7 from the first stage and 3 from the second stage were excluded.

Ultimately, at the end of the first stage, 60 sources had been identified. By the conclusion of the second stage, this number had increased to 81 sources. During the third stage, 8 additional sources were incorporated while 10 previously selected sources were removed. As a result, the final dataset for the literature review comprised 79 sources in total, including 64 journal articles, 3 conference papers, 4 book chapters, 6 books, and 2 websites.

# 3 NARRATIVE COHERENCE IN STORY TELLING

This chapter defines and discusses different perspectives on coherence, examines the role of narrative coherence in storytelling and also outlines how coherence is identified in this review. In addition, the chapter defines the concept of story and discusses the role of the storyteller as well as the emergence of digital storytelling, its key elements, and its various applications, which together form the foundation of this study.

## 3.1 Definition of story and the role of storyteller

To understand storytelling, it is essential to first define the term "story." According to the Online Etymology Dictionary (2025), the word "story" originates from the Anglo-Norman French *storie* or *estorie*, meaning "story, chronicle, history," which derives from the Latin *historia*, signifying "history, account, tale, or narrative." For the ancient Latins, *historia* referred to a "narrative of past events, account, or tale" (Online Etymology Dictionary, 2025).

The Latin *historia* itself was borrowed from the Greek *historia*, which meant "learning or knowing by inquiry; an account of one's inquiries; knowledge, historical record, or narrative" (Online Etymology Dictionary, 2025). Furthermore, the Greek word *histōr* traces back to the root *idein*, meaning "to see," and *eidenai*, meaning "to know" (Online Etymology Dictionary, 2025; Shipley, J.T., 1984, as cited in Benjamin, 2006, p. 159).

Thus, it is evident that the word "story" is etymologically linked to "history" and implies the transmission of information from a place of knowledge (Benjamin, 2006; Garcia-Pelegrin et al., 2021; Sibierska, 2017). Therefore, it can be claimed that, aside from offering entertainment, relaxation, and social bonding, conserving cultural knowledge, storytelling is significant because it serves as a medium for the storyteller to impart knowledge to others while also assisting individuals in understanding reality

and shaping their views and values (Benjamin, 2006; Garcia-Pelegrin et al., 2021; Scott, 2011).

However, scholarly studies indicate that storytellers convey information, without reducing their stories to straightforward explanations (Benjamin, 1968, as cited in Scott, 2011, p.204). The storyteller uses experience, whether it be his/her own or someone else's, to inform his/her tales, and by doing so, he transforms that experience into something that his audience can relate to (Benjamin, 1968, as cited in Scott, 2011, p.204). Thus, their interpretation is more than simply an explanation; rather, it revolves around events or a sequence of events, skilfully constructed to captivate and engage an audience (Benjamin, 1968, as cited in Scott, 2011, p.204). This allows the storyteller to retain the story's complexity and artistic potential while stimulating his/her audience's imaginations through subtle presentation.

Storytelling is not merely about relaying facts but about shaping experiences that resonate at a deeper level, drawing listeners or readers into a compelling narrative (Walwema, 2015). Thus, another important role of a storyteller is to enhance the emotional engagement of the audience. A well-told story goes beyond simple retelling when it demonstrates an enactment or representation of reality that creates vivid mental images, immersing the audience in its world (Lugmayr et al., 2017; Sibierska, 2017). Furthermore, artists do not depict the entirety of reality, but instead highlight a portion of it, intentionally filtered through their own personal perspective to evoke emotions in their audience while stimulating the mind, fostering reflection and thought, which stands as one of storytelling's essential qualities (Garcia-Pelegrin et al., 2021; Lugmayr et al., 2017).

### **3.2 Digital storytelling**

Digital storytelling integrates traditional storytelling techniques with digital material, such as text, photos, audio, music, and video, to create compelling stories (Hartley & McWilliam, 2009; Lambert & Hessler, 2018; Ohler, 2013; Robin, 2008, 2016). By incorporating these multimedia components, certain hardware and software tools make it easier to arrange stories according to specific themes or points of view. This usually produces brief digital stories that are playable on computers or other digital devices and last between two and ten minutes (Hartley & McWilliam,

2009; Lambert & Hessler, 2018; Ohler, 2013; Robin, 2008, 2016). A lot of digital tales are now posted online so that web browsers can access them more widely (Robin, 2016).

However, digital storytelling is not a novel concept, but Dana Atchley's experimentation with artistic possibilities of combining digital technologies to produce and share stories in the 1980s marked the beginning of digital storytelling (Hartley & McWilliam, 2009). Along with Joe Lambert and Nina Mullen, he established the San Francisco Digital Media Center (later known as the Center for Digital Storytelling (CDS) in 1994 after introducing workshops at the American Film Institute in 1990 (StoryCenter, 2024). After moving to Berkeley in 1998, the San Francisco Center for Digital Media changed its name to the Center for Digital Storytelling. The company eventually changed its name to StoryCenter in 2015 (StoryCenter, 2024). By providing resources, training, and the Seven Elements of Digital Storytelling, the CDS emerged as a key player in the digital storytelling movement and inspired several industries, including education, advertising, and leadership (De Jager et al., 2017; Oskoz & Elola, 2016; Robin, 2008; Rossiter & Garcia, 2010). Currently known as StoryCenter, it still promotes digital storytelling as a game-changing instrument for innovation, creativity, and connection.

A pioneering researcher in digital storytelling, Robin (as cited in Robin, 2016, p.18) divided digital storytelling into three primary categories to highlight its many uses in various contexts: 1) personal narratives - stories that depict important occasions in life or personal experiences. 2) historical documentaries - stories that explore past events to enhance historical understanding. 3) informative/instructive stories - stories that educate viewers on specific concepts, such as technology, mathematics, or other subjects.

Despite variations in the context, Lambert (2010) introduced seven crucial components as being necessary for creating a successful digital story: the narrator's voice, which adds authenticity and context; the point of view, which represents the storyteller's perspective; a dramatic question, which keeps the audience interested until it is answered; emotional content, which evokes a strong personal connection; economy, which ensures concise storytelling without overwhelming the audience; the impact of soundtrack, which uses sound effects or music to enhance the narrative;

and pacing, which regulates the rhythm and flow of the story to keep the audience interested.

Thus, this review will approach storytelling as a creative human practice that not only enables self- and other-representation but also allows us to move between real and imagined worlds and to transform experiences into meaningful narratives that evoke emotion. It also identifies storytelling as a tool for both action and knowledge, fostering social and cognitive growth and offering opportunities to learn from the struggles of others.

Furthermore, this review recognizes that digital storytelling combines traditional narrative methods with digital media, such as text, photos, sound, music, and video, using software and hardware tools to craft concise, themed stories that convey specific perspectives. It also highlights that, to foster a meaningful interaction between the narrator and the audience, digital storytelling involves more than just technology; it also requires the storyteller's artistic and critical thinking skills. In addition, this review emphasizes that digital storytelling is about sharing and connecting, not merely conveying a single tale or offering media representation, but about producing deeper meaning through interaction and reflection.

However, whether conveyed through traditional or digital means, storytelling relies on the ability to communicate a clear, meaningful, and cohesive message. Narrative coherence is therefore essential, as it enables stories to resonate with audiences, support understanding, and convey experience in purposeful ways. Thus, the next section will examine the importance of narrative coherence in storytelling.

### **3.3 Definition and different perspectives on coherence**

Halliday and Hasan's *Cohesion in English* (1976) is widely regarded as a seminal investigation of the linguistic mechanisms that maintain textual coherence and enable the formation of authentic writings. Even after its publication, coherence continued to be viewed and occasionally disregarded as an imprecise and unclear concept. To answer this matter of debate, the 'Workshop on Coherence in Discourse' was organized at the University of Augsburg in 1997. The papers in that collection likely address coherence from various angles, demonstrating that although scholars agree on some fundamental ideas, their theoretical approach influences how they

define and interpret coherence. However, coherence has established itself as a crucial idea in discourse and narrative analysis, despite the fact that its complexity remains unclear and the subject of ongoing debate.

Textlinguistic coherence is defined as the qualities of a text that convey the impression that it is cohesive, consistent, and effective in communication, where all of its components fit together to form a meaningful whole (Karadeniz, 2017). In narrative research, effective narratives follow a logical, frequently chronological path from start to finish, resulting in a thematic conclusion (Hyvärinen, 2010; McAdams, 2006). Coherent narratives connect events through a linked series of acts, usually beginning with an initiating incident that causes an internal reaction in the protagonist and inspires goal-directed efforts that ultimately result in consequences (Nicolopoulou, 2008; Pinto et al., 2015). These narratives are evaluated for coherence based on their overarching point's clarity, relevance, and personal meaning in addition to their structure (Witte & Faigley, 1981).

However, linguists have long debated how to analyze coherence, as on the one hand, general textual rules and conventions, such as paragraphing, paragraph structure, and usage, provide a framework for coherence (Bublitz et al., 1999; Toolan, 2009). On the other side, readers' or listeners' assessments of a text's relevance, informational value, and suitability for its particular context also play a role in determining coherence (Bublitz et al., 1999; Toolan, 2009). Narrative coherence is also defined by psychological study in terms of how readers arrange a story in their mental structures. According to one viewpoint, coherence is the depiction of a story that adheres to a predetermined order or "grammar" of events (Givón, 1995). Another viewpoint concentrates on how readers make connections between different parts of the story, such as understanding a character's feelings as a reaction to an earlier action or reading one occurrence as creating another (Givón, 1995). As a result, a significant amount of psycholinguistic research focuses on the kinds of inferences readers draw from stories, emphasizing the cognitive effort required to make them comprehensible (Givón, 1995; Toolan, 2009).

Additionally, academic studies on narrative reveal that coherence cannot be explained solely by adhering to conventional rules (Bublitz et al., 1999; Toolan, 2009). While stories that deviate from usual expectations of clear timelines, logical cause-and-effect characters with goals and intentions, and a proper ending, may

seem incoherent to some readers or listeners, such deviations do not always result in incoherence.

A single text can give rise to different forms of coherence: that of the perspective of the producer (speaker or author), the interpreter (reader or listener), and that of the analyst, which may or may not align, since it is people, not texts, who create coherence in the process of engaging with them, whether in fabricating, obtaining, or assessing (Bublitz et al., 1999). Typically, by directing the listeners (or readers) sometimes subtly, sometimes more directly, speakers (or writers) aim to foster coherence towards an intended interpretation that aligns closely with, or ideally matches, their own (Bublitz et al., 1999).

In reverse, these signals are used by readers or listeners to comprehend and match their interpretation with the meaning intended by the writer or speaker. In another way, people build and polish their own sense of coherence according to their interpretation of the writer's (or speaker's) meaning (Bublitz et al., 1999; McAdams, 2006). Thus, continuing arguments surrounding the definition of coherence emphasize that coherence is a cooperative process between the speaker (or writers) and the listener (or readers) rather than an inherent quality of a text. The listener (or reader) actively interprets the writer's signals to make connections between events and discover meaning, follow character motivations and developments, and become more involved with the text. (Bublitz et al., 1999; McAdams, 2006). Ultimately, this indicates that the reader's expectations, world knowledge, and contextual understanding all have an impact on coherence, as do textual conventions like organization, paragraphing, and repetition.

For all of the aforementioned reasons, this study asserts that access to more than just the text is often necessary for a narrative to be coherent and fully interpreted. However, this review identifies a coherent narrative, as one that gives readers enough clear or subtle clues to connect events, identify the story as a cohesive whole, and understand its meaning or purpose drawing on four main types of coherence that have been suggested in Textlinguistic Studies, namely temporal, causal, thematic, and referential. Additionally, this study defines that an incoherent narrative is deficient in these connecting hints, which makes it difficult for readers to make connections or comprehend the story as a meaningful whole.

### 3.4 The role of narrative coherence in storytelling

A well-formed narrative arranges events logically and chronologically, incorporating essential elements such as setting, characters, a triggering event, a conflict, and a conclusion (Silva & Cain, 2019). Thereafter, establishing a causal chain among these elements and their connection to the whole is crucial for narratives because it preserves coherence without becoming overly complicated. Toolan (2009) highlights that a narrative is considered coherent when it appears comprehensible and complete, that is, when no important details seem to be entirely absent from the text. Importantly, absent information does not refer to details that readers can logically deduce or retrieve, referring to cues such as ellipsis, genre expectations pertinent to the tale, or narrative conventions. Thus, coherence breaks down when important details are unrecoverable, making it impossible for the reader to understand the story in a meaningful way (Toolan, 2009).

More complex narratives introduce themes and predictions, further enhancing coherence (Pinto et al., 2015; Silva & Cain, 2019). However, as indicated by Witte & Faigley (1981) and many other scholars, coherence goes beyond internal structure and depends on how well a text aligns with its context, audience knowledge, expectations, and real-world understanding (Bublitz et al., 1999; Cain, 2003; Linde, 1993).

Coherent narratives frequently repeat or slightly alter names, key words, ideas, or references because readers expect stories to have a sense of unity, flow, and persistence in story matter (Toolan, 2009). A thorough understanding of the story's subject or protagonist is preserved by this repetition. Therefore, linguistic repetition is not a defect; rather, it is a crucial tool for giving a story a sense of coherence and connection.

Writers or speakers construct content in a manner that enables readers to follow the characters, the issues they encounter, the resolution of those issues, and the conclusion, thereby creating a coherent story (Nicolopoulou, 2008; Pinto et al., 2015). This is because it is the characters in a story that enable readers to understand it to a significant extent. Constructing characters entails the selection, introduction, and maintenance of characters whose roles are meaningfully connected throughout the narrative, in addition to the linkage of a sequence of actions and

events (Nicolopoulou, 2008). Trabasso and Nickels stress that “The main character’s actions are interpreted as renewed attempts with goal failures and reinstatements that eventually lead to goal success ...” (as cited in Nicolopoulou, 2008, p. 304). Thus, the reader’s or listener’s perception of the overall coherence of the story may be affected if a character’s identity, motivations, or conduct are unclear, inconsistent, or untrustworthy.

The scholarly research emphasizes that coherence encompasses not just linguistic structure but also moral, cultural, and cognitive aspects. As McAdams (2006) emphasizes, the coherence of a story involves more than just a linguistic or structural matter; it is inseparably linked to the moral and cultural context in which the story is delivered, and so varies greatly from one society or culture to the next. Together, these insights highlight that narrative coherence is a multifaceted concept that extends far beyond formal textual organization.

Toolan (2009) notes that context determines the standards of coherence, which are not fixed. Extraordinary happenings nevertheless appear logical in some storyworlds, such as fantasy or magical realism, because they suit the established reality of the historical era and cultural setting in which a story is set. Therefore, as depicted in narratology and scholarly studies, coherence is an important feature for text comprehension and narrative construction, since if a story doesn’t follow a logical order or help the reader form a clear picture of its meaning, it may appear confusing or incoherent (Adler et al., 2018; Cain, 2003; Witte & Faigley, 1981).

This study points out that a story can be considered cohesive when it provides readers with sufficient cues to establish connections between events and to identify a unifying theme or purpose. The absence of coherence may generate significant negative reactions since it is such a deeply embedded expectation in the way we interpret language and storytelling. Because the story provides too little reward for the work required to understand it, readers may get frustrated, confused, or dismissive, viewing it as absurd, pointless, or useless.

# 4 STRATEGIES FOR ACHIEVING NARRATIVE COHERENCE

This chapter analyzes and discusses four main types of coherence identified in text linguistics, showing how coherence is operationalized through these types in-text linguistics that enable readers to construct a coherent mental model. It also examines widely used strategies for achieving narrative coherence in digital storytelling.

## 4.1 Four main types of coherence

According to academics, global coherence refers to the general sense of unity and meaning that unites all of a text's components and allows readers to comprehend it as a cohesive whole, while local coherence focuses on the logical connections between adjacent words or sentences (Habermas & Bluck, 2000; Kintsch & Van Dijk, 1978; Toolan, 2009). Since, global coherence concerns the meaningful integration of the text as a whole, it is understood as a complicated and multi-layered phenomenon that depends on various forms of linkage across the text rather than arising from a single aspect (Givón, 1995). Among these forms, temporal, causal, thematic, and referential coherence play a central role in assisting readers in comprehending the relationships between concepts, events, settings, and themes throughout the story.

### 4.1.1 *Temporal coherence*

Temporal coherence refers to the degree to which the time relationships among events in a text are logically connected and comprehensible to the reader (Duran et al., 2007; Habermas & Bluck, 2000; McAdams, 2006; Shapiro & Hudson, 1991). For the sequence of events to be interpreted as a coherent whole, it is necessary to not only display them in a logical chronological order but also to indicate time shifts in a clear and understandable manner (Duran et al., 2007; Linde, 1993; McAdams, 2006). McAdams (2006) argues that the readers or listeners' ability to form a cohesive

mental model of events can be strained and temporal coherence undermined by narratives that deviate from standard chronological sequencing, such as starting with the ending, moving back to the beginning, leaping far into the future, going back briefly, and then moving forward several years. Adler et al. (2018) further enhances McAdams' (2006) argument reasoning that this difficulty arises because narrative understanding is usually guided by the notion of temporal linearity, in which stories are arranged into a beginning, middle, and end.

However, in addition to whether or not the events are arranged on a dynamic timeline, the degree to which events have been systematically organized through the use of temporal markers is another aspect of temporal coherence (Duran et al., 2007; Habermas & Bluck, 2000; Kintsch & Van Dijk, 1978; Pinto et al., 2015; Shapiro & Hudson, 1991). These include references to spans of time, precise time indicators like "12 noon", adverbial expressions such as "for decades", and precise dating using calendar references like December 30, 1990. In addition to these, narrators use additional temporal markers and conjunctions such as: next, later, later on, thereafter, immediately, previously, finally, at first, initially, in advance, in summary, at last, all of a sudden, shortly, the following day, the next day, meanwhile, till, right now, primarily, so far, henceforth etc. (Pinto et al., 2015).

Studies demonstrate that even though it is natural to think of events in the order they actually happen, when that natural order is disrupted, people often depend on temporal markers to re-establish events back to their true chronological sequence (Duran et al., 2007; Kintsch & Van Dijk, 1978; Pinto et al., 2015; Shapiro & Hudson, 1991). Therefore, temporal markers are crucial for both improving overall temporal coherence in a narrative and establishing events on a mental timeline, thereby enhancing the overall linguistic quality of the narration.

#### **4.1.2 Causal coherence**

The degree to which events are logically connected through cause-and-effect linkages that go beyond simple chronological links is one of the fundamental requirements for narrative coherence (Habermas & Bluck, 2000; McAdams, 2006; Shapiro & Hudson, 1991). In this casual connection, characters' actions have consequences, previous events explain outcomes, and the conclusion is dependent

on previous occurrences (Cain, 2003; Linde, 1993; Nicolopoulou, 2008; Repp, 2017). In this way, even if a story's events are unrealistic or unimaginable to happen in the real world, they can be incredibly logical and coherent (Repp, 2017). Henceforth, researchers observe that stories lose coherence when events seem unplanned or disjointed and fall short of readers' expectations for a meaningful sequence when they lack a causal framework.

Nevertheless, in order to express goal-directed activities, to demonstrate dependency across clauses, and to create more intricate segments of meaning narrators use causal connectives such as "and," "because," "then," "but," "although," "since," "yet," "so," "next," "thus," "consequently," "therefore," "for this reason", and so forth (Kintsch & Van Dijk, 1978). Accordingly, as studies emphasize, causal connectives enable readers or listeners to comprehend the story by showing how actions and events are connected through concrete, intentional, and mental connections, thereby contributing to the overall causal coherence of the narrative (Kintsch & Van Dijk, 1978; Pinto et al., 2015; Shapiro & Hudson, 1991)

#### **4.1.3 Thematic coherence**

Maintaining a constant and logical connection between underlying themes or ideas in a narrative is known as thematic coherence (Duran et al., 2007; McAdams, 2006; Repp, 2017). In contrast to subject matter, which only specifies what a story is about, themes are better understood as general claims, frequently referred to as thematic claims that the work contains (Repp, 2017). Accordingly, these claims may touch on a variety of human issues, such as, community, governance, human behaviour, and ethics. These issues may be conveyed in multiple forms, at times through direct statements from the author, but more commonly through characters' reflections, conversations, or the unfolding of events within the narrative (Repp, 2017). Further, the narrative world might portray realistic themes like politics, psychology, or ethics, even if it contains more fantastical than actual circumstances (Repp, 2017).

When the themes in a story emphasize issues that humans find significant and persistent, the reader/listener can determine the narrative's explicit purpose. A story may lack coherence when readers are unable to visualize a "real-world scene" from

it, indicating that it lacks a clear purpose of what it is about, why it is written, and for whom it is intended (Witte & Faigley, 1981). Without an explicit purpose, the narrative is unable to convey the information that has to be communicated to the audience, which makes the story as a whole incoherent (Witte & Faigley, 1981).

Therefore, the degree of coherence of the story relies on how well readers or listeners are convinced that the various concepts, events, and character actions all support and enhance one another while conveying the same theme (McAdams, 2006; Repp, 2017). Research has also indicated that thematic coherence enhances the authorial credibility and thematic reliability, thereby increasing the likelihood that themes will accurately express reality and provide readers with information rather than just faith (Habermas & Bluck, 2000; Repp, 2017).

#### **4.1.4 Referential coherence**

One essential component of textual coherence is referential coherence. This occurs when the various sections of a text are connected by repeating or overlapping references (Kintsch & Van Dijk, 1978). These reference points, which can be to persons, things, or concepts, let readers or listeners follow the relationships between ideas in a story (Kintsch & Van Dijk, 1978). Narrators fill in the blanks by drawing inferences if these connections are absent (Kintsch & Van Dijk, 1978). Therefore, one of the most dependable and easily recognized indicators of a coherent text basis is referential coherence, which contributes to the overall structural unity of the story even if it is frequently correlated with other coherence criteria (Kintsch & Van Dijk, 1978; Nicolopoulou, 2008).

In order to create referential coherence in a story, narrators typically use pronouns and other referential indicators, primarily anaphora, while maintaining focus on the same subject (Shiramatsu et al., 2008; Smirnova, 2019). The narrator connects ideas and makes the discourse simpler to follow and comprehend by using anaphora, which is when a word or phrase refers to something that has already been mentioned (Smirnova, 2019). Thus, referential coherence contributes significantly to the narrative coherence of a story, which makes the language of the story easier for the audience to grasp by drawing links between the facts presented in propositions

as well as between people, using pronouns and other referential indicators (Kintsch & Van Dijk, 1978; Shiramatsu et al., 2008; Smirnova, 2019).

Thus, scholarly studies demonstrate that narrative coherence is a multifaceted concept that depends on the interplay of global and local connections within a text. The four main types, temporal, causal, thematic, and referential coherence, each contribute uniquely to the reader's or listener's ability to comprehend and mentally model a narrative as a unified whole. Temporal coherence ensures that events are logically sequenced, and the use of temporal markers enables readers to build a mental timeline, while causal coherence links actions and consequences to create a meaningful progression. Thematic coherence maintains consistency of ideas and underlying messages, providing the story with purpose and relevance, and referential coherence connects characters, concepts, and events through repeated or overlapping references. Therefore, this study shows that, collectively, these dimensions, supported by linguistic cues, allow narratives to be interpreted as coherent and meaningful, highlighting the critical role of coherence in both narrative comprehension and effective storytelling.

## **4.2 Strategies for achieving narrative coherence in digital storytelling**

These strategies are mostly inspired by the digital storytelling workshops developed by Joe Lambert at the Center for Digital Storytelling. Specifically, this discussion identifies storyboarding, image libraries, story circles, the use of sound and music, and story-writing exercises as key strategies employed by researchers and practitioners to foster both narrative coherence and creative engagement in digital storytelling.

### **4.2.1 Storyboard**

Storyboarding is recognized as a crucial method in digital storytelling, enabling the visually arranged and organized presentation of narrative ideas to create a coherent and compelling narrative flow (France & Wakefield, 2011; Kearney, 2011; Lambert, 2010; Lambert & Hessler, 2018; Sukovic, 2014; Tan et al., 2014). According to Lambert (2010), a storyboard is a two-dimensional space where a visual story can

be planned. Time, or outlining the sequence of events that occur at the beginning, middle, and end, is the first dimension. The other dimension is showing how the photos or video interact with the audio, which includes the music and the voice-over narration of one's story. Hence, according to scholarly research, storyboarding helps bring clarity to what visuals, voice-over narration, and music are required, as well as the order of events and which elements do not belong in the story (France & Wakefield, 2011; Kearney, 2011; Lambert, 2010; Sukovic, 2014). In addition, (France & Wakefield, 2011) mention that making storyboards allows the storyteller to determine whether enough planning has been done or needs to incorporate more secondary sources by reviewing the storyboard.

Thus, the use of designing a storyboard to visualize the narration during filming was examined in many studies in the field. Tan et al. (2014) investigated the potential benefits of digital storytelling pedagogy for fifth-grade pupils at a Singaporean elementary school. In the study, students were instructed to create a digital narrative that conveyed scientific content about the water cycle. (Tan et al., 2014) stated that even though technology was a significant factor in their study, they gave more weight to the story's quality and the science content's accuracy and made sure that the software wouldn't cause students to become diverted from their learning objectives. Thus, before allowing the students to use the Microsoft Windows Movie Maker software, Tan et al. wanted to concentrate the pedagogical approach on developing a coherent narrative structure and required the students to create storyboards.

Therefore, first, each student was instructed to make their own storyboard, which included a minimum of four illustrated panels, each accompanied by written text, depicting the story's introduction, conflict, peak, and conclusion. They were then asked to make a group storyboard, which was created by combining the individual storyboards through group discussions to promote critical thinking, cooperative learning, challenge handling, and teamwork. The findings revealed that storyboarding helped students achieving a high level of narrative coherence from introduction to resolution. Their stories remained inside the story world's borders, events occurred in a logical order, and without any unexpected plot changes or gaps, the story structure was consistent (Tan et al., 2014).

Similarly, Schuck and Kearney conducted a qualitative study in 2004 that examined how digital video (DV) activities were used in five K–12 schools in Australia

(Kearney, 2011). As students produced films in a variety of genres and contexts, data were collected at different stages in the DV production process. From the first storyboarding and brainstorming to the final presentation and sharing of the videos, these phases covered it all. The importance of establishing concepts and making storyboards early in the process was emphasized by the study's instructional design. Before filming, students must share their storyboards with their teachers or colleagues to gain different perspectives and, if required, edit the stories. Researchers indicated that the goal of employing a storyboard was to assist students in planning what images to take and visualizing the format of their digital videos. Storyboard planning and brainstorming were aided by mind maps and other organizational tools. Students were held accountable for their finished storyboards as they were prepared to edit, revise, and update them before filming. Thus, according to Schuck and Kearney, the purpose of emphasizing the use of a storyboard is not only to guarantee that the narrative in students' finished digital video productions remains coherent and well-organized but also to enhance peer collaboration.

#### **4.2.2 *Image pool***

In digital narratives, the audience and storyteller develop a deeper relationship through the use of still or moving pictures. The easiest way to start a digital story, according to Lambert (2010), is to search your home for pictures that bring back special memories and personal tales. Next, they ought to look for additional pictures in their immediate environment that correspond with those tales. Connecting these recollections and pictures into a coherent and significant story is the ultimate objective. Therefore, research on the pedagogical potential of storytelling examines how the meaning of a story is communicated through the use of visuals in the process of producing a visual narrative (Kalantari et al., 2023; Sukovic, 2014).

For example, Kalantari et al. (2023) utilized a digital storytelling app named Kids Story Builder to conduct a preliminary qualitative investigation examining the potential role of digital storytelling technology in the home context with children (ages 6-7) and their parents. The parent could use the 45 illustrated images they provided as scaffolds, which "included 14 characters, 8 actions, 6 events, 12 objects, and 5 places" (Kalantari et al., 2023, p.3). The parent could download these images to their

tablet and use them while building the narrative with their kid in Kids Story Builder. During the online interviews with parents, researchers found that the image library used as a scaffold provided a complete framework that assisted kids in creating their own stories by identifying narrative links among images. Children's associative thinking was stimulated by the visuals, which allowed them to combine images to create coherent stories creatively (Kalantari et al., 2023). Most parents reported staying mostly detached and watching their child's storytelling process; however, some occasionally assisted their children in keeping focused on the story when the pictures got too distracting. Overall, the results indicate that when children's capacity to comprehend and arrange their stories coherently does not come naturally, it is successfully aided by the image library.

Likewise, a digital storytelling project, named iTell, also discusses the importance of working with an image pool and storyboards (Sukovic, 2014). The project was grounded in a creative reading challenge and an examination of transliteracy and high school student involvement with learning, and also incorporated the creation of digital stories. Students from Sydney and regional areas in grades 7-10 participated in iTell. Sukovic (2014) mentions that the assignment required the students to compose a brief essay (around 200 words) and consider several approaches to conveying their ideas. According to students, no one had tried writing in such a compressed style before this project. While some students found short form challenging, others found it fascinating because it was a novel approach to focusing on various viewpoints. All of them were urged, meanwhile, to incorporate pictures into their writing.

The final survey revealed that, out of all the project's activities, working with images was everyone's favourite activity and that even some hesitant writers created visual stories that seemed complicated and metaphorically addressed personal difficulties using storyboards with little to no text. They also used the images as an important tool to write more and communicated with images and text collectively. Above all, the survey indicated that the small details of the images also served as a springboard for more imaginative writing. Therefore, according to Sukovic (2014), the use of photos in this project has enabled students to convey their artistic ideas effortlessly and ultimately create imaginative and cohesive digital narratives.

However, Lambert (2010) suggests that the storyteller needs to carefully think about the images that best express the story's message. According to Lambert (2010), there are two types of images used in storytelling: explicit images, which directly match and support the spoken narration by providing important and necessary details, and implicit images, which enrich the story's meaning through techniques such as visual metaphor or juxtaposition, rather than directly depicting the spoken words. Thus, the order and choice of images are crucial because a digital story accompanying these two types of images actually contains two layers of storytelling: the spoken story conveyed through narration and the visual story communicated through the images (Lambert, 2010). Therefore for the story to feel coherent and powerful, both of these narratives must work together in harmony, hence it is essential to pay close attention to the visuals while creating a digital story.

### **4.2.3 Story Circle**

According to Lambert (2010), storytellers should reconsider the audience and presentation style before finalizing a digital story. Reflecting on who the audience is and what they already know about the storyteller helps guide final editing decisions such as tone, pacing, and level of information, ensuring the story is understandable, meaningful, and effectively connects with viewers (Lambert, 2010). The Story Circle is a structured group process that encourages storytellers to explore this audience awareness. Participants are encouraged to relate their stories in an open and encouraging setting during story circle sessions. Additionally, they refine and concentrate their story, reducing it to a timely and significant narrative that also aligns with the particular goal or theme of the storytelling session.

Lambert (2010) studied that this helps storytellers in determining the core experiences and emotions they want to convey, and being aware that their stories will be seen by others encourages participants to carefully craft their narrative and message. Lambert (2010) further noted that the group environment of the Story Circle encouraged more reserved or independent students who are typically reluctant to ask for help to be more social. Storytellers are suggested to spend some time reflecting on their ideas and insights when the Story Circle process is over (Couldry et al., 2015; Lambert, 2010; Sukovic, 2014). Considering aspects like audience,

purpose, emotion, and clarity help them make creative choices and enhance the overall effect of their tale when they eventually sit down to write or refine their script (Couldry et al., 2015; Lambert, 2010; Sukovic, 2014).

Couldry et al. (2015) also agree with Lambert that Story Circles enable digital storytelling to move beyond individual narratives and transform into a communal, interactive storytelling environment where people can engage meaningfully and relate to one another. In 2011 and 2013, Couldry et al. (2015) performed an action research study in the North of England, investigating the social environments and digital tools needed to enable new forms of storytelling and the creation of shared knowledge. According to the study, stories can be meaningfully related to and connected when they are gathered in a shared, interactive storytelling environment. This makes it possible to create a more sophisticated and varied network of stories that illustrate how many people's experiences intersect and influence one another.

In workshops conducted by Lambert and Couldry et al. (2015), each participant is kept motivated and focused throughout the process by the connections and relationships made during the Story Circle, which frequently turn into sources of inspiration and support. Therefore, research shows that it might be difficult to find and express the deeper feelings and ideas in one's story coherently while working alone; collaboration provides crucial support and affirmation needed to create a compelling and coherent story.

#### **4.2.4 Sound and music**

In workshops, Lambert (2010) advises storytellers to highlight significant points, especially the story's turning point, by adding music or ambient sound in addition to the recorded voice narration. Further, Lambert (2010) suggests imagining the noises that are naturally connected to the recollection since ambient sound can generate a powerful feeling of place and emotion, and help in the audience's deeper connection to the scenario. In the same way, the rhythm, story's emotional tone, and general character of a story can all be improved by the thoughtful application of music. Without overpowering the voiceover, instrumental music frequently works best while complementing the story and images, as mentioned by Lambert (2010). Likewise, to add further levels of coherence and emotional complexity, well-known songs with

lyrics can still be used effectively if their message is purposefully contrasted with the story's narration.

#### **4.2.5 Story-writing blocks**

Kalantari et al. (2023), in their qualitative investigation on using a digital storytelling application called Kids Story Builder, also used story-writing blocks as scaffolds arranged around a storytelling framework that guides the plot through key stages. In the study, the researchers developed a partially completed moral narrative for the investigation. These unfinished sections were presented as story cues within the *Kids Story Builder* app. To assist families in continuing or completing the story, each cue was displayed as text on the slides of the digital story. The story followed a typical story structure: beginning with cues such as “Once upon a time...,” continuing through the middle with cues like “Every day...,” “But one day...,” and “Because of that...”, and concluding with endings such as “Until finally...,” “Ever since then...,” and “The moral of the story was...” (Kalantari et al., 2023, p.4). Then, the families were encouraged to construct their own versions of the story by altering the story file and the given suggestions.

Parents who participated in the interviews stated that the story cues provided as scaffolds assisted their children in constructing more structured and coherent stories, and also that this showed children's narrative thinking deficiencies by emphasizing the necessity of preserving a cohesive story. (Kalantari et al., 2023). Additionally, they regarded the moral conclusion as an important educational component.

Kalanrari et al. mention that in general, parents believed that the story cues benefited children's storytelling by enhancing coherence, story planning, and higher-order thinking while highlighting their learning. However, the rigid format of the spine occasionally clashed with the stories their kids intended to tell, according to a few parents, emphasizing the necessity for flexibility in how the framework was used (Kalantari et al., 2023).

In conclusion, the strategies examined in this chapter, storyboarding, image libraries, story circles, the thoughtful use of sound and music, and structured story-writing scaffolds, demonstrate the significance of using purposefully designed teaching methods in digital storytelling. Emerging largely from Lambert's foundational

work, these approaches support learners in organizing narrative content, strengthening thematic and causal connections, and aligning multimodal elements to produce coherent and compelling stories. In addition, these approaches highlight the pedagogical value of intentional scaffolding in helping learners craft coherent and compelling digital narratives, thereby highlighting the centrality of narrative coherence to effective digital storytelling.

Empirical studies across varied educational contexts show that such strategies not only improve narrative coherence but also foster students' creativity, collaboration, reflective thinking, and engagement. Collectively, they underscore that coherent digital narratives do not arise spontaneously; rather, they are supported by instructional practices that guide learners in shaping meaningful, structured, and emotionally resonant stories. Thus, these insights highlight the essential role of narrative coherence in digital storytelling and reinforce the broader educational benefits of integrating these strategies into contemporary learning environments.

## 5 DISCUSSION

This chapter synthesizes and interprets the key findings of the literature review regarding the research questions, linking them to the wider theoretical and pedagogical implications of narrative coherence in digital storytelling within educational contexts. While identifying how the concept of narrative coherence serves as a pedagogical and learning framework, the chapter also evaluates the extent to which collaborative practices and creative tools support coherence and considers the resulting implications for teachers and students. Finally, the chapter outlines the limitations of the thesis and proposes areas for future investigation.

The purpose of this study was to explore the pedagogical importance of narrative coherence in digital storytelling and examine how collaborative methods and creative tools contribute to creating narrative coherence in digital storytelling within educational settings. The findings of this literature review provide insights into the first research question concerning the importance of narrative coherence in storytelling. Findings indicate that narrative coherence is fundamental to storytelling, as it ensures that stories are coherent, meaningful, and comprehensible to the audience. Coherence in digital storytelling enables students to follow complicated multimodal narratives and integrate written, visual, and aural components into a cohesive whole. Further, the review also indicates that coherence is a social and cognitive process that the audience and storyteller work together to create, in addition to being a structural aspect of a narrative.

The second major finding relates to the teaching methods that foster coherence in digital storytelling, specifically, the use of storyboarding, story circles, image pool, sound and music integration, and story-writing frameworks, thereby addressing the second research question on the methods used to achieve narrative coherence in digital storytelling. With the assistance of these tools, students are able to systematically organize, visualize, and improve their stories, encouraging both creative involvement and structural clarity.

## 5.1 The importance of narrative coherence in storytelling for pedagogy

The reviewed literature indicates that narrative coherence is essential to generating meaning in both traditional and digital storytelling. Coherence assures that themes, characters, and events are logically connected, enabling listeners or readers to see the narrative as a cohesive progression (Cain, 2003; Nicolopoulou, 2008; Pinto et al., 2015; Silva & Cain, 2019). When a narrative displays temporal, causal, thematic, and referential coherence, it facilitates readers' or listeners' ability to follow event sequences, recognize cause-and-effect links, and comprehend underlying messages and moral lessons. In educational contexts, this structural integrity functions as a cognitive scaffold that supports comprehension and critical thinking by providing learners with models for how information and meaning are organized (Adler et al., 2018; Kalantari et al., 2023).

Inspired by Lev Vygotsky's Zone of Proximal Development (ZPD), Bruner coined the word "scaffolding" in 1975. The term "scaffolding" describes the supportive actions and words that adults employ to assist children learn more than they could on their own (Arshad & Chen, 2009). ZPD, according to Vygotsky (1978), means "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Thus, scaffolding can bridge the gap in education between what a student can accomplish independently and what they can accomplish through the assistance or collaboration from a more experienced person, such as an educator or a more competent colleague. Through scaffolding in digital storytelling tasks, teachers are able to assess each student's ZPD and adjust their assistance to ensure continued learning growth (Arshad & Chen, 2009).

The findings demonstrate that scaffolding in digital storytelling encourages children to think more critically by structuring their reasoning and encouraging reflection. Scaffolds for narrative thinking, such as story-writing blocks and guided cues, help children organise events logically, maintain coherence, and make more purposeful selections when shaping their plots (Kalantari et al., 2023). These scaffolds encourage kids to assess narrative components, consider actions and

consequences, and express the message. Some parents have observed that this has forced their kids to think more deeply and reflect (Kalantari et al., 2023). By encouraging children to draw links between visuals and narrative concepts, scaffolds that support visual comprehension, like image libraries, help foster critical thinking by compelling them to consider connections and story logic (Kalantari et al., 2023; Sukovic, 2014). Children further engage in problem-solving and cognitive flexibility, which are essential elements of critical thinking, as they determine how to integrate scaffolds, adapting cues or pictures to match their intended story.

A significant theoretical framework for comprehending the pedagogical importance of narrative coherence in storytelling is provided by Vygotsky's socio-cultural theory. The idea that higher psychological functions first appear in social interaction before internalizing as independent cognitive processes is fundamental to Vygotsky's theory (Vygotsky, 1978). Findings show that storytelling serves as a potent cultural instrument that facilitates this social-to-individual evolution, especially when it is delivered through cohesive and culturally significant narratives (Couldry et al., 2015; Kearney, 2011; Lambert, 2010; Niemi & Multisilta, 2016; Quah & Ng, 2022; Robin, 2016; Shelby-Caffey et al., 2014; Sukovic, 2014). Through shared narratives, dialogue, and collective meaning-making, children initially encounter narrative structures intramentally and gradually internalize these narrative structures intramentally as they learn to organize experiences, establish concepts, and create their own coherent narratives (Arshad & Chen, 2009; Shabani et al., 2010).

Narratives are crucial in mediating cognitive growth because they offer a framework for understanding events, determining causal and temporal linkages, and fusing new information with existing knowledge (McAdams, 2006; Toolan, 2009). Hence, coherent storytelling promotes meaningful learning in socially situated circumstances, supports concept formation, and helps students make sense of complicated knowledge, all of which are in line with Vygotskian principles from a pedagogical standpoint. Therefore, findings of this study emphasize that narrative coherence is a fundamental mechanism that facilitates socio-cultural learning rather than merely an aesthetic aspect of good instruction.

Additionally, the review confirms that coherence develops through the relationship between the storyteller and the audience rather than being a fixed textual property (Bublitz et al., 1999; McAdams, 2006). In digital storytelling, this relationship

becomes multimodal, relying on a balanced integration of visual, auditory, and textual components. Findings, therefore, indicate that both teachers and students must conceptually engage with the affordances and limitations of digital infrastructures, as the digital media utilized in digital storytelling shape the structure of these multimodal communication activities (Meier, 2022; Picciano, 2019). In this context, choosing, generating, and coordinating semiotic resources in a coherent narrative form involves multimodal competency in digital storytelling. Consequently, digital storytelling and multimodal teaching are closely interlinked, with digital storytelling acting as a dynamic pedagogical approach that implements multimodal literacy into practice.

Specifically in digital storytelling, narrative coherence serves as a learning style that incorporates not only the standard visual, auditory, and read/write models but also broader models like social (collaborative) and analytical (logical). Different learning styles are another crucial consideration in academic literature (Lin et al., 2005; Picciano, 2019). Some people benefit from visual stimulation, while others prefer other stimuli. Even in classroom engagement, some students need an active learning situation, while others learn equally well in less active settings. Scholarly literature emphasizes that these learning preferences are further shaped by personality qualities like extroversion and introversion (Lin et al., 2005; Picciano, 2019). Thus, Picciano (2019) recommends that both energetic, socially conscious students and more thoughtful, introverted ones should be supported in the classroom. This is best achieved through multimodal teaching, which enables students to perform to their strengths while also encouraging them to learn new abilities in unfamiliar ways (Gardner, 1983, as cited in Picciano, 2019, p.13). In digital storytelling, achieving narrative coherence through the integration of multimodal elements directly meets this requirement, since it engages multiple learning styles while encouraging flexible, inclusive paths for meaning-making.

The reviewed literature also demonstrates that achieving coherence in digital storytelling requires deliberate design choices that align narrative content with emotional tone, pacing, and the sequencing of multimedia elements. Moreover, as Niemi and Multisilta (2016) argue, emotional involvement and narrative logic together make learning both intellectually stimulating and enjoyable. Therefore, narrative coherence should be understood as a fundamental pedagogical principle that

enhances comprehension, empathy, and reflective thinking, all of which are important goals of contemporary education.

## **5.2 Strategies that foster narrative coherence in digital storytelling**

The findings indicate that creative tools and collaborative processes play an essential role in supporting narrative coherence in digital storytelling projects. Among the strategies identified, such as storyboarding, the use of image pools, story circles, and sound design, each contributes to specific dimensions of coherence.

Storyboarding, as discussed by Lambert (2010), France and Wakefield (2011), Tan et al. (2014), Kearney (2011), and Sukovic (2014), supports temporal and causal coherence by allowing learners to visually organize plot structures before production. This visual planning process helps students maintain logical sequencing and avoid narrative gaps. Studies show that storyboarding not only improves logical flow but also encourages collaborative refinement, thereby strengthening coherence through shared meaning-making (France & Wakefield, 2011; Kearney, 2011; Lambert, 2010; Tan et al., 2014).

Similarly, the use of image pools provides visual stimuli that enhance thematic and referential coherence. Images help students visualize narrative relations, identify emotional cues, and develop richer themes. By associating images with narrative ideas, learners are guided to make connections between visual and verbal representations, enabling them to visualize relationships between concepts and to establish symbolic or emotional links, thereby constructing more cohesive storylines (Kalantari et al., 2023; Lambert, 2010; Sukovic, 2014).

Story Circles, another collaborative practice inspired by Lambert (2010), reinforce coherence through social reflection and dialogue. Sharing preliminary stories within peer groups encourages participants to clarify their narrative intentions, align emotional tone with thematic purpose, and refine their storytelling based on audience feedback (Couldry et al., 2015; Lambert, 2010; Sukovic, 2014). This collaborative reflection encourages students to focus on elements that directly influence coherence, such as audience awareness, clarity, and emotional connection.

Additionally, by aligning auditory cues with the tone and rhythm of the narrative, sound and music enhance thematic and emotional coherence (Lambert, 2010). Well-timed music and ambient sound are deliberately used to highlight key moments, set the mood, and reinforce coherence between visual and auditory elements. Scaffolds such as story-writing blocks, used in Kalantari et al. (2023), guide learners in constructing stories with clear beginnings, middles, and endings, fostering logical continuity while allowing for creativity. However, although helpful for building causal and thematic coherence, the review also indicates that overly rigid frameworks may constrain creativity, highlighting the need for flexible rather than prescriptive prompts (Kalantari et al., 2023).

Collectively, these strategies illustrate that achieving narrative coherence in digital storytelling involves the integration of cognitive, aesthetic, and collaborative processes. It is through this combination that learners are able to create narratives that are structurally sound and emotionally compelling.

### **5.3 Implications for learning**

The pedagogical implications of these findings are many. First, teaching narrative coherence as a learnable skill empowers students to become intentional meaning-makers rather than passive content consumers. Through scaffolded digital storytelling activities, such as drafting storyboards, curating image libraries, and participating in Story Circles, students practice the higher-order cognitive processes of organization, synthesis, and evaluation that underlie coherent communication. In addition, such experiences align with key 21st-century competencies, including creativity, collaboration, and digital literacy (Kearney, 2011; Niemi & Multisilta, 2016; Quah & Ng, 2022; Robin, 2016; Shelby-Caffey et al., 2014).

Second, the collaborative nature of digital storytelling fosters social-emotional learning and intercultural awareness. Through peer dialogue and shared reflection students learn to appreciate diverse perspectives, and learn from others while refining their own narratives. As a result, coherence becomes a socially constructed process that fosters empathy and mutual understanding in addition to being a linguistic or cognitive skill.

This collective meaning-making helps learners situate their personal narratives within broader cultural and ethical frameworks (Couldry et al., 2015; Lambert, 2010; Sukovic, 2014). This finding has important implications for critical pedagogy as articulated by Joe L. Kincheloe and Peter McLaren, since critical pedagogy challenges conventional teaching methods that view students as passive consumers of knowledge. It stresses discourse, critical thought, and the growth of critical consciousness rather than viewing pupils as passive consumers of knowledge. The epistemological resources that student-generated narratives encourage students to explore the world around them while also comprehending their individual selves and what has influenced them (McLaren & Kincheloe, 2007). In addition to empowering students to actively effect change, collective meaning-making recognizes the complexity and diversity that are inherent in both teaching and learning. Further, this perspective suggests that educators should act as researchers who generate information and assist pupils in creating their own understandings.

Third, the findings of this study emphasize that the educational value of narrative and content creation must not be overshadowed by the effective application of technology, even though technological mediation was acknowledged as a crucial component of digital storytelling. When overemphasized, technological tools carry the risk of diverting from the actual content of storytelling (Tan et al., 2014; Kearney, 2011). Instead, technological tools serve primarily as mediating tools that enhance learners' creative and cognitive processes. Therefore, before the introduction of digital tools, the educational emphasis should be purposefully placed on building students' narrative ability and conceptual comprehension.

Ultimately, the literature review highlights the significance of teacher training that combines narrative theory with digital pedagogy, which strengthens students' ability to craft structured and expressive stories. Educators must explicitly teach coherence markers, narrative structure, and multimodal integration to model coherence. Additionally, they should encourage students to engage in reflective activities that allow them to assess critically how effectively their narratives convey intended meanings.

## 5.4 Research limitations and future research directions

A strength of the current review lies in its originality, for being the first study to examine the importance of narrative coherence in digital storytelling, particularly in relation to its pedagogical implications. Another strength of this review is that its findings add to the expanding body of research that supports balanced approaches that integrate creativity, subject-matter expertise, and technological proficiency to promote meaningful learning experiences.

However, several limitations should be acknowledged. The scope, accessibility, and methodological diversity of the investigated sources limit the results of this study as it is based on a literature review. The research relied exclusively on secondary data; therefore, its conclusions are interpretative rather than empirical. Future research should employ mixed-method or design-based approaches to examine how specific digital storytelling tools foster coherence in practice. Moreover, the review was limited to educational contexts, excluding applications of digital storytelling in other fields such as healthcare or corporate training, and included only studies published in English. The majority of the studies analyzed focused on small-scale classroom interventions rather than large-scale or longitudinal assessments, which limits the generalizability of the findings. Furthermore, although much research explores the affective and linguistic dimensions of narrative coherence, empirical evidence linking coherence to measurable learning outcomes, such as retention, critical thinking, or creativity, remains scarce.

Future investigations should address these limitations and several key areas to extend the understanding of narrative coherence in digital storytelling. To determine how coherence-oriented digital storytelling affects students' comprehension, motivation, and long-term knowledge retention, empirical classroom research is required. Such research would extend beyond the interpretive nature of current literature and provide verifiable evidence connecting narrative structure and educational outcomes.

Cross-cultural research could investigate the construction and interpretation of coherence in contexts of multilingual and multicultural digital storytelling. This research would provide insightful information about how students from various linguistic and cultural backgrounds understand coherence and narrative logic in

digital media. Moreover, teacher training programs that integrate narrative theory and digital literacy should be examined to determine how educators can effectively guide students in coherence-building activities. Investigating how teachers can model, assess, and support coherent storytelling practices would strengthen the pedagogical foundations of digital storytelling. Another promising direction is the integration of artificial intelligence and adaptive digital tools that can scaffold narrative coherence by offering real-time feedback on structure, pacing, and multimodal balance.

## 6 CONCLUSION

This study investigated the pedagogical importance of narrative coherence in digital storytelling and examined how creative tools and collaborative practices support the construction of coherent narratives within educational settings. Drawing on a literature review, it explored two key questions: the significance of narrative coherence in storytelling and the strategies used to achieve it in digital environments.

The findings reveal that narrative coherence is essential for constructing meaningful and engaging stories. It allows learners to follow the logical flow of events, connect ideas, and interpret messages more effectively. In educational contexts, this structural clarity becomes even more significant, as coherent narratives serve as cognitive scaffolds that support deeper comprehension, critical reflection, and emotional engagement. By helping learners organize ideas and navigate complex multimodal texts, narrative coherence supports both literacy development and higher-order thinking.

The review also revealed that coherence does not emerge spontaneously in students' digital stories; rather, it is cultivated through intentional pedagogical design. Creative strategies such as storyboarding, Story Circles, and the thoughtful use of visuals and sound emerged as valuable means of achieving coherence. These tools provide opportunities for learners to develop both narrative and digital literacy skills by experimentation, receiving feedback, and making purposeful decisions about structure, pacing, and multimodal alignment. Similarly, collaboration further enriches this process by encouraging dialogue, peer feedback, and shared meaning-making, transforming storytelling into an interactive and reflective learning experience.

Effective facilitation requires balancing narrative theory with digital literacy, modelling narrative decision-making, and scaffolding students' reflective processes. In this regard, the study highlights the educator's role as a facilitator who guides students in shaping coherent narratives while integrating technology meaningfully. When teachers create learning environments that prioritize structure, creativity, and purposeful multimodal composition, digital storytelling becomes a powerful pedagogical practice.

Although this study was grounded in secondary literature, it establishes a theoretical basis for further empirical research. Future studies could explore how coherence-focused digital storytelling influences learning outcomes such as critical thinking, creativity, motivation, and engagement, as well as how learners from different cultural or linguistic backgrounds interpret and construct coherent narratives.

Ultimately, this thesis concludes that coherent digital storytelling extends beyond technical proficiency; it cultivates deeper understanding, communication, empathy, and creativity. When coherence guides the process, digital storytelling becomes a transformative pedagogical tool that connects learners, ideas, and experiences in enduring and intellectually meaningful ways.

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